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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,041	11/14/2003	Bert Bergner	21334-1282	3188
29450	7590	03/01/2005	EXAMINER	
BARLEY SNYDER, LLC 1000 WESTLAKES DRIVE, SUITE 275 BERWYN, PA 19312			HYEON, HAE M	
			ART UNIT	PAPER NUMBER
			2839	

DATE MAILED: 03/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/714,041

Applicant(s)

BERGNER ET AL

Examiner

Hae M. Hyeon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-12 is/are pending in the application.
- 4a) Of the above claim(s) 11 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 5, 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Holt (5,478,254).

Holt discloses a connector arrangement 10 comprising a plug 12 having a housing 24, a cable 16 with at least two core pairs 15, a shield 21, contact elements 28; and a receptacle 14 having a housing 26, a cable 18 with at least two core pairs 17, a shield 22, contact elements 30. The contact elements 28 and 30 are connected to core ends of the core pairs 15 and 17, respectively. Also, the contact elements 28 and 30 are arranged in each housing 24 and 26 to correspond to the spatial arrangement of the core pairs in the cables 16 and 18 such that each core pair 15 and 17 is arranged approximately equidistantly relative to each core end and the associated contact elements 28 and 30 of at least one of the other core pairs. The shape of the shields of each connector is conformed to the plug 12 or the receptacle 14 respectively. Figure 3 shows the shield 21 of the plug 12 is electrically connected to the shield 22 of the receptacle 14 upon plugging together. The plug 12 is screwed to the receptacle 14.

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3. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by De La Cruz et al (6,616,482 B2).

De La Cruz discloses a connector comprising a connector 1 connecting to a complementary connector 3. The connector 1 is mounted on a quad cable 2, which includes four wires 4 (two core pairs). The connector 1 includes a housing 10, a shield 7, and contacts 11 that are connected to core ends of the core pairs 4. De La Cruz states that the connector 3 has a structure, which is similar to that of connector 1 (see column 3, lines 1-4). The contacts 11 are connected to core ends of the core pairs 4 and are arranged in the housing 10 to correspond to the spatial arrangement of the core pairs in the cables 2. Figures 1 and 4 show each core pair 4 being arranged equidistantly relative to each core end and the associated contact elements 11 of the at least one of the other core pairs.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holt.

Holt does not disclose the connector being an M12 plug face circuit connector carrying direct current transmitted on two cores in addition to the differential signals or the mating connector being for connection to a printed circuit board as recited in claims 6, 7 and 10.

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However, it is common knowledge that any electrical connector can be made to carry different signal and to use in various environment.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the connector arrangement taught by Holt such that it would be an M12 plug face circuit connector carrying direct current transmitted on two cores in addition to the differential signals and the mating connector being for connection to a printed circuit board because electrical connector can be made to carry different signal and to use in various environment. These limitations only deal with a designer's choice.

Response to Arguments

6. Applicant's arguments filed February 17, 2005 have been fully considered but they are not persuasive.

The applicant argues that both Holt and De La Cruz do not disclose the spatial relationship of core pair being equidistant from each core end and the associated contact element of at least one of the other core pairs. The applicant continues to argue that Holt is silent regarding the spatial relationship of the wires 15 and 17 and Figures 1 and 4 of De La Cruz do not identifies the core pairs.

The examiner agrees with the applicant that Holt does not describe literally the spatial relationship of core pair being equidistant from each core end and the associated contact element of at least one of the other core pairs. However, a person having ordinary skill in the art would know this simply by looking at the drawings of Holt. Figures 1 and 2 show the housing 24 of the plug 12 having five or six holes. A person having ordinary skill in the art would know that these holes are for contact elements 28. Furthermore, Figures 1 and 2 clearly show that the contact

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holes are equidistant from each core end and the associated contact element of at least one of the other core pairs. Holt explains that the contact elements 28 are attached to the wires 15, but not a core as recited in the claims. However, a person having ordinary skill in the art would know that wires 15 of Holt are the same as the core of the claimed invention because in order for a wire to be attached to a contact element the insulation of the wire must be stripped off to show bare portion of the core of the wire. Then the bare core end of the wire is attached to the contact element. The applicant is simply using his or her own terminology to explain the common process of attaching a wire to a contact element. Since this process is the inherent process in the art that it is not necessary to explain to understand.

Regarding to De La Cruz, column 4, lines 34-37 and 59-65 explains that the channels 35 for receiving a wire 4 and contact 1 have openings 40 and these openings 40 are arranged at equal distances across the center 41 of the face 39. This center 41 is aligned with the center 36 along the axis 29. Clearly, De La Cruz discloses the spatial relationship of core pair being equidistant from each core end and the associated contact element of at least one of the other core pairs. Thus, the examiner believes that the rejections applied in the previous office action are appropriate.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hae M. Hyeon whose telephone number is 571-272-2093. The examiner can normally be reached on Mon.-Fri. (8:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tulsidas C. Patel can be reached on (571) 272-2098. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hae M Hyeon
Primary Examiner
Art Unit 2839

hnh hnh

Hae Moon Hyeon